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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MRUK, GEOFFREY S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/635,409	Applicant(s) HAINES ET AL.	
	Examiner Geoffrey Mruk	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12, 25-27, 29-35 and 37-40 is/are pending in the application.
- 4a) Of the above claim(s) 33-35 and 37-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 29 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-12, 25-27 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6 August 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 33-35 and 37-40, Group IC, are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 17 February 2006.

The examiner makes of record that the restriction requirement dated 23 January 2006 between inventions IA and IB is withdrawn in view of applicant's arguments.

A careful review of Groups IA and IB with Group IC indicates that these are properly restricted as process and apparatus for its practice. Additionally, the process of supplying liquid ink to a printhead assembly can be practiced by a materially different apparatus such as the ink delivery apparatus as shown in Figure 2 of United States patent 5,481,289 to Arashima et al.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-3, 6-12, 25-27, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Arashima et al. (US 5,481,289).

With respect to claim 1, Arashima discloses a filter (Fig. 7, elements 63, 70) for a printhead assembly (Fig. 3), the filter comprising:

- a frame (Fig. 7, element 19) having an opening (Fig. 3, element 69) and a fluid passage (Fig. 7, volume between elements 63, 70) communicated with the opening formed therein;
- filter material (Fig. 7, element 70) enclosing the opening and the fluid passage of the frame;
- a first fluid port (Fig. 7, element 94) communicated with the fluid passage of the frame;
- a permeable material (Fig. 7, element 67) provided in a fluid path of the first fluid port and
- a second fluid port (Fig. 7, element 52) spaced from the first fluid port and communicated with the fluid passage of the frame.

With respect to claim 2, Arashima discloses the fluid passage (Fig. 7, area between elements 63, 70) of the frame is adapted to direct air from the first fluid port to the second fluid port (Column 7, lines 16-20).

With respect to claim 3, Arashima discloses the permeable material (Fig. 7, element 67) is adapted to allow air to pass therethrough before the permeable material is wetted by liquid ink and prevent air from passing therethrough when the permeable material is wetted by the liquid ink (Column 7, lines 16-20).

With respect to claim 6, Arashima discloses a filter (Fig. 7, elements 63, 70) for a printhead assembly (Fig. 3), the filter comprising:

- a frame (Fig. 7, element 19) having an opening (Fig. 3, element 69) and a fluid passage (Fig. 7, volume between elements 63, 70) communicated with the opening formed therein;
- filter material (Fig. 7, element 70) enclosing the opening and the fluid passage of the frame;
- a first fluid port (Fig. 7, element 94) communicated with the fluid passage of the frame;
- a permeable material (Fig. 7, element 67) communicated with the first fluid port and
- a second fluid port (Fig. 7, element 52) spaced from the first fluid port and communicated with the fluid passage of the frame,
- wherein the permeable material includes a mesh material (Column 7, lines 12-14).

With respect to claim 7, Arashima discloses the filter material is secured (Column 10, line 58) to the frame around a perimeter of the opening (Fig. 7, element 94).

With respect to claim 8, Arashima discloses the filter material has a mesh size in a range of approximately 2 microns to approximately 20 microns (Column 11, lines 6-11).

With respect to claim 9, Arashima discloses the filter material (Fig. 7, elements 63, 70) is adapted to allow liquid ink to pass therethrough, (Column 11, lines 1-11) and

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wherein the filter material is adapted to prevent air from passing therethrough when the filter material is wetted by the liquid ink (Column 1, lines 60-67).

With respect to claim 10, Arashima discloses the filter material (Fig. 7, elements 63, 70) is adapted to allow air to pass therethrough before the filter material is wetted by the liquid ink (Column 7, lines 16-20).

With respect to claim 11, Arashima discloses the frame has a first face (Fig. 7, element 94) and a second face (Fig. 7, element 52) opposite the first face, wherein the opening of the frame communicates with the first face and the second face, and wherein the filter material (Fig. 7, elements 63, 70) is provided on the first face and the second face of the frame.

With respect to claim 12, Arashima discloses the frame (Fig. 7, element 19) has a substantially rectangular shape, and wherein the first fluid port (Fig. 7, element 94) and the second fluid port (Fig. 7, element 52) extend from a side of the substantially rectangular shape.

With respect to claim 25, Arashima discloses a printhead assembly (Fig. 3), comprising:

- a carrier (Fig. 3, element 60) having a fluid manifold (Fig. 9, element 95) defined therein;
- a printhead die (Fig. 4) mounted on the carrier and communicated with the fluid manifold; and
- a fluid delivery assembly (Fig. 3, element 66) coupled with the carrier and including a filter (Fig. 7, elements 63, 70) including a frame (Fig. 7, element 19)

having an opening and a fluid passage (Fig. 7, volume between elements 63, 70) communicated with the opening formed therein, filter material (Fig. 7, element 70) enclosing the opening and the fluid passage of the frame, first and second fluid port (Fig. 7, elements 94, 52) communicated with the fluid passage, and a permeable material (Fig. 7, element 67) provided in a fluid path of the first fluid port,

- wherein the second fluid port of the filter communicates with the fluid manifold of the carrier (Column 16, lines 12-24).

With respect to claim 26, Arashima discloses the fluid passage (Fig. 7, volume between elements 63, 70) of the frame is adapted to direct air from the first fluid port to the second fluid port (Column 7, lines 16-20).

With respect to claim 27, Arashima discloses the permeable material (Fig. 7, element 67) of the filter is adapted to allow air to pass therethrough before the permeable material is wetted by liquid ink and prevent air from passing therethrough when the permeable material is wetted by the liquid ink (Column 7, lines 16-20).

With respect to claim 30, Arashima discloses a printhead assembly, comprising:

- a carrier (Fig. 3, element 60) having a fluid manifold (Fig. 9, element 95) defined therein;
- a printhead die (Fig. 4) mounted on the carrier and communicated with the fluid manifold; and
- a fluid delivery assembly (fig. 3, element 66) coupled with the carrier and including a filter (Fig. 7, elements 63, 70) including a frame (Fig. 7, element 19)

having an opening and a fluid passage (Fig. 7, volume between elements 63, 70) communicated with the opening formed therein, filter material (Fig. 7, element 70) enclosing the opening and the fluid passage of the frame, first and second fluid ports (Fig. 7, elements 94, 52) communicated with the fluid passage, and a permeable material (Fig. 7, element 67) communicated with the first fluid port,

- wherein the second fluid port of the filter communicates with the fluid manifold of the carrier (Column 16, lines 12-24) ,
- wherein the permeable material of the filter includes a mesh material (Column 7, lines 12-14).

With respect to claim 31, Arashima discloses the filter material of the filter (Fig. 7, elements 63, 70) is adapted to allow liquid ink to pass therethrough, and wherein the filter material of the filter is adapted to prevent air from passing therethrough when the filter material is wetted by the liquid ink (Column 7, lines 16-20).

With respect to claim 32, Arashima discloses the filter material (Fig. 7, elements 63, 70) of the filter is adapted to allow air to pass therethrough before the filter material is wetted by the liquid ink (Column 1, lines 60-67).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 7-9, 11, and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/635,636. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the copending application 10/635,636 and is covered in the copending application 10/635,636 since both applications are claiming common subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Claims 1, 2, 7-9, 11, and 12 in the filed application for the filter for a printhead assembly are covered by claims 1-5 in the copending application 10/635,636, as shown in Table 1 below.

Table 1

<u>Copending Application 10/635,636</u>	<u>Instant Application</u>
1. A filter for a printhead assembly, the filter comprising: a frame having a first face and a second face opposite the first face, and an opening formed therein communicated with the first face and the second face; separate filter material provided on each the first face and the second face of the frame, and enclosing the opening of the frame; and a fluid fitting associated with the frame, the fluid fitting including a fluid port offset from the frame and a fluid passage communicated with the opening of the frame and the fluid port.	1. A filter for a printhead assembly, the filter comprising: a frame having an opening and a fluid passage communicated with the opening formed therein; filter material enclosing the opening and the fluid passage of the frame; a first fluid port communicated with the fluid passage of the frame; a permeable material provided in a fluid path of the first fluid port and a second fluid port spaced from the first fluid port and communicated with the fluid passage of the frame. 11. The filter of claim 1, wherein the frame has a first face and a second face opposite the first face, wherein the opening of the frame communicates with the first face and the second face, and wherein the filter material is provided on the first face and the second face of the frame.
2. The filter of claim 1, wherein the filter material is secured to the first and second face of the frame around a perimeter of the opening.	7. The filter of claim 1, wherein the filter material is secured to the frame around a perimeter of the opening.
3. The filter of claim 1, wherein the filter material has a mesh size in a range of approximately 2 microns to approximately 20 microns.	8. The filter of claim 1, wherein the filter material has a mesh size in a range of approximately 2 microns to approximately 20 microns.
4. The filter of claim 1, wherein the filter material is adapted to allow liquid ink to pass there through, and wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink.	9. The filter of claim 1, wherein the filter material is adapted to allow liquid ink to pass therethrough, and wherein the filter material is adapted to prevent air from passing therethrough when the filter material is wetted by the liquid ink.
5. The filter of claim 1, wherein the fluid passage of the fluid fitting is adapted to direct air from the fluid port of the fluid fitting to the opening of the frame.	2. The filter of claim 1, wherein the fluid passage of the frame is adapted to direct air from the first fluid port to the second fluid port.
12. The filter of claim 1, wherein the frame has a substantially rectangular shape, and wherein the fluid port of the fluid fitting extends from a side of the substantially rectangular shape.	12. The filter of claim 1, wherein the frame has a substantially rectangular shape, and wherein the first fluid port and the second fluid port extend from a side of the substantially rectangular shape.

The preamble of application 10/635,409 does not limit the claimed invention because all of the limitations of the invention are the same as the limitations in copending application 10/635,636. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use the filter for a printhead assembly disclosed in copending application 10/635,636 in the filter for a printhead assembly, as claimed in the present application.

Allowable Subject Matter

Claims 5 and 29 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for allowance for claim 5 is that applicant's claimed invention includes a filter for a printhead assembly having a porous plug fitted within the first fluid port where the porous plug is impregnated with a clogging agent. It is this limitation, expressed in the claimed combination not found, taught, or suggested in the prior art that makes this claim allowable over the prior art.

The primary reason for allowance for claim 29 is that applicant's claimed invention includes a printhead assembly having a porous plug fitted within the first fluid port where the porous plug is impregnated with a clogging agent. It is this limitation, expressed in the claimed combination not found, taught, or suggested in the prior art that makes this claim allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakano (US 5,546,109) discloses a filter device for an ink jet printer (Fig. 3).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM

4/27/2006

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**STEPHEN MEIER
SUPERVISORY PATENT EXAMINER**